

-30-

° What is claimed is:

1. A method for inducing an enhanced immunological response against at least one antigen in a mammal, said method comprising the steps of:

- 5 - inoculating the mammal with a first recombinant vector comprising a DNA vector and a gene encoding said antigen; and
- inoculating the mammal with a boosting immunization with a second recombinant vector comprising a second DNA vector and the gene encoding said antigen.

2. The method according to claim 1, wherein the first recombinant vector comprises a recombinant vaccinia virus vector.

3. The method according to claim 1, wherein the first recombinant vector comprises a recombinant fowlpox virus vector.

4. The method according to claim 1, wherein the first recombinant vector comprises an adenovirus vector.

5. The method according to claim 1, wherein the recombinant vectors further comprise a gene encoding an immunostimulatory molecule.

6. The method according to claim 1, wherein the second recombinant vector comprises a recombinant vaccinia virus vector.

7. The method according to claim 1 wherein the second recombinant vector comprises a recombinant fowlpox virus vector.

8. The method according to claim 1 wherein the

SUB
A1
T00240-8688660

-31-

- ° second recombinant vector comprises a recombinant adenovirus vector.

9. ^A The method of immunotherapy for treatment of a cancer patient, said method comprising the steps of:
- 5 - immunizing said patient with an effective amount of a first recombinant vector comprising a first viral vector and a gene encoding a tumor-associated antigen; and
- 10 - boosting said patient with an effective amount of a second recombinant vector comprising a second viral vector and the gene encoding the tumor-associated antigen.
- 15 10. The method according to claim 9, wherein the tumor-associated antigen comprises gp100.
11. The method according to claim 9, wherein the tumor-associated antigen comprises MART-1.
- 20 12. The method according to claim 9, wherein the tumor-associated antigen comprises TRP-1.
13. The method according to claim 9, wherein the tumor-associated antigen comprises TRP-2.
- 25 14. The method according to claim 9, wherein the recombinant vectors further comprise a gene encoding an immunostimulatory molecule.
- 30 15. The method according to claim 9, wherein the first viral vector comprises a vaccinia virus.
16. The method according to claim 9, wherein the first viral vector comprises a fowlpox virus.

35

-32-

17. The method according to claim 9, wherein the first viral vector comprises an adenovirus.

18. The method according to claim 9, wherein the second viral vector comprises a vaccinia virus.

19. The method according to claim 9, wherein the second viral vector comprises fowlpox virus.

20. The method according to claim 9, wherein the second viral vector comprises an adenovirus.

15

20

25

30

35

add
D3

000240 28588860